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The cryptoclub. Using mathematics to make and break secret codes.

Wellesley, MA: AK Peters (ISBN 1-56881-223-X/pbk). xvi, 199 p. (2006).

Publisher's description: Join the Cryptokids as they apply basic mathematics to make and break secret codes. This book has many hands-on activities that have been tested in both classrooms and informal settings. Classic coding methods are discussed, such as Caesar, substitution, Vigenère, and multiplicative ciphers as well as the modern RSA. Math topics covered include: Addition and Subtraction with, negative numbers, decimals, and percentages; Factorization; Modular Arithmetic; Exponentiation; Prime Numbers; Frequency Analysis. The accompanying workbook provides students with problems related to each section to help them master the concepts introduced throughout the book. A PDF version is available at no charge <http://www.akpeters.com/downloads/marketing/solutions/beissinger/workbook.pdf>. The teacher manual can be requested from the publisher.

Classification: F64 A24 D44

Keywords: alphametics; cryptography; arithmetic; number theory; teaching activities; secondary schools; upper secondary